

# REMOVAL OF FIXED PROSTHESIS



# **CAUSES OF REMOVAL**

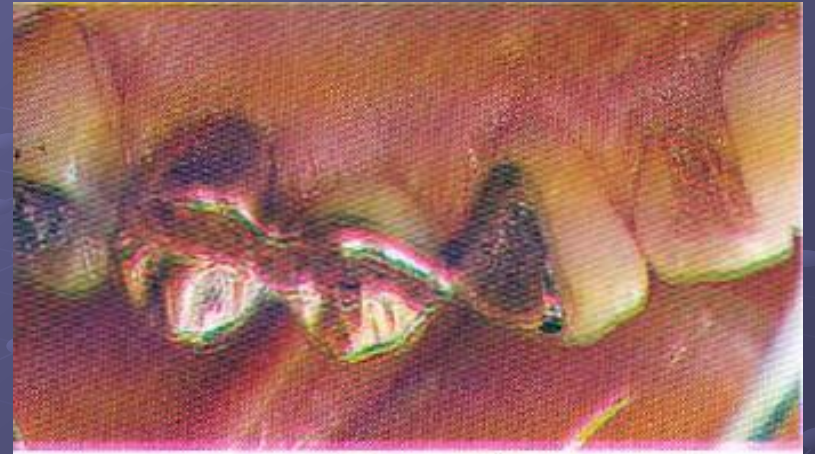
1. after checking & verification
2. after temporary cementation
3. after permanent cementation

## ● **Why after permanent cementation?**

- Discolored Veneering material
- defective margin
- Remake
- Repair

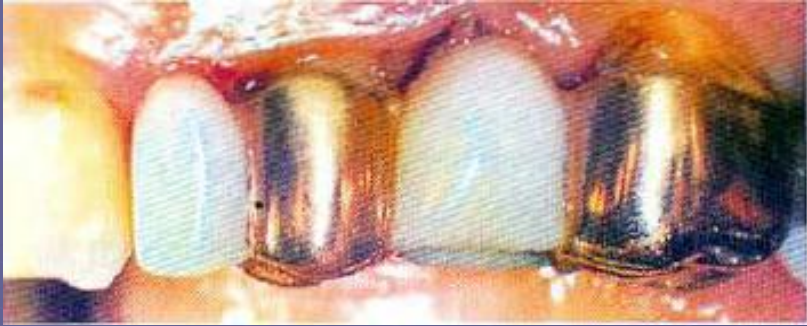


**Badly worn acrylic bridge facings.**



**bad design**





**bridge with defective margins and extensive gingival inflammation.**



**The lateral incisor facing has chipped**

# Factors affecting removing

- Restoration site
- Abutment no.
- Restorative material
- Pulp condition
- Type of cement
- Periodontal condition

# ***Consideration during removing***

- Suitable tip selection
- Tip resting on metal margin as possible
- Starting with mild force
- Direction of traction
- long span bridge
- Crown removal not used with periodontally affected teeth



**Method of removing**  
**-intact removing**  
**-scarifies of rest**



# A. INTACT REMOVAL

- **Hand instrument** (spoon excavator, universal scaler)

- **Crown**

  - 1-manual crown remover

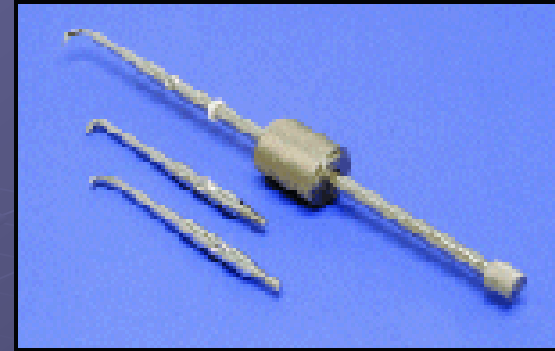
  - 2-spring activated crown remover

  - 3-Pneumatic crown&bridge remover (air-activated )

  - 4-ATD Automatic Crown and Bridge Remover (Air-activated device.)

  - 5-CORNA flex system (Air-activated device0

  - 6-Richwil crown & bridge remover



- manual crown remover
- spring activated crown remover







**Pneumatic crown&bridge remover**  
 (Air-activated crown and bridge  
 remover that breaks cement  
 seal using short, repeated, and low  
 impact force.)



**ATD Automatic Crown and  
 Bridge Remover**  
 (removes restorations through vibrations rather  
 than the more typical jack hammer effect)





**ATD Automatic Crown and  
Bridge Remover**



**Maryland bridge**



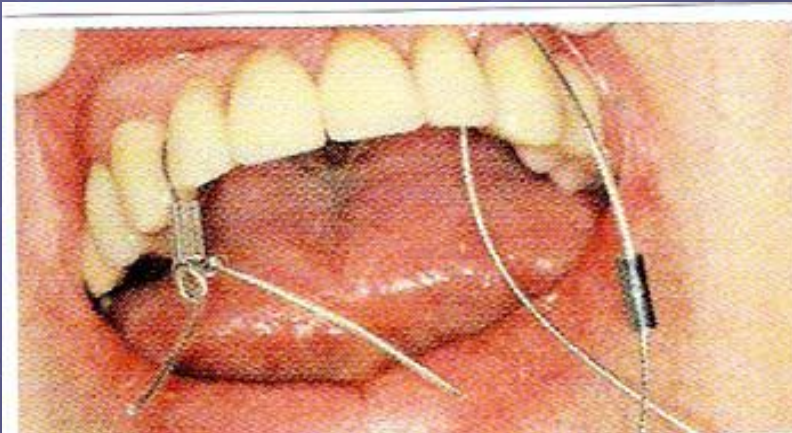
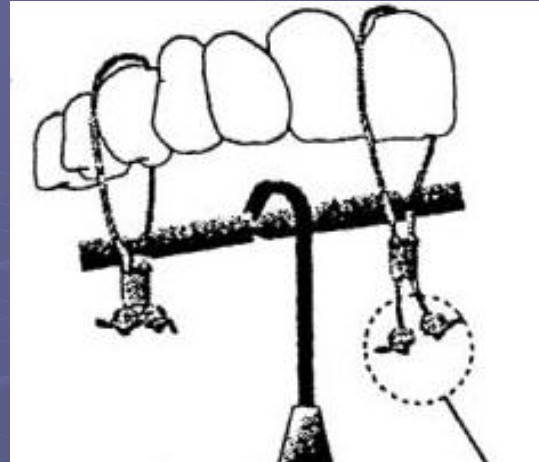




**CORNA flex system**  
(delivers the impact for removing the restoration)



## Flexi-wire Technique

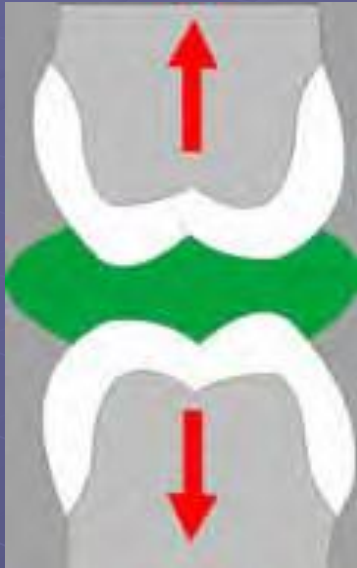


Removal of a bridge with a Flexi-Wire



Single crown with a copper band

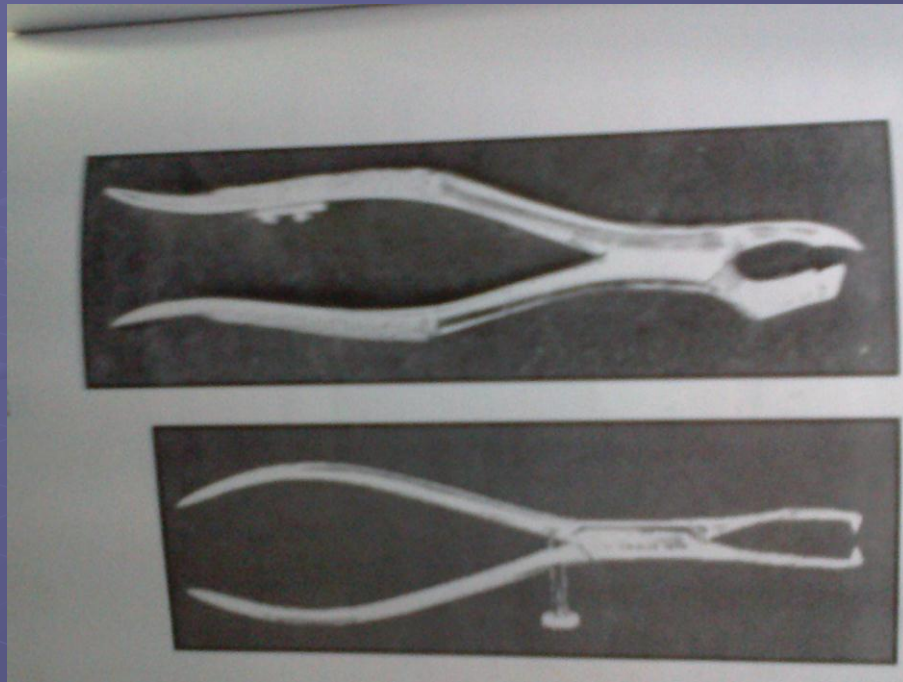




# B. scarifies of rest

- Sectioning
- Crown splitter







# Post puller (Eggler post remover)





**Hallow end cutting tube**

# Another cr. & br. removal

## CROWN INSTRUMENTS

CODE: BCRO

Replaces  
upper and lower  
crowns.



**4607**  
CROWN REMOVER

For splitting and  
spreading the crown  
open for removal.



**4608**  
CROWN SPREADER

For gripping onto  
the crown and  
removing from  
the tooth.



**4610**  
CROWN GRIPPER

Temporary  
crowns  
orthodontic  
remover or  
brackets.



**4704**  
CROWN REMOVER



Christensen Crown Remover



Goldstein Crown Remover



**KY Pliers**  
**Crown and Bridge Remover**  
**KY Pliers are a convenient means for removal of**  
**temporary crown**





## **Wynman Crown Gripper**

The Wynman Crown Gripper is useful in placing crown in tight spaces as well as removing temporary crowns.



## **Trial Crown Removers**

# HOW CAN WE REPAIR C&B FAILURES?



**In Fixed Prosthodontics practice, it is not unusual to meet some failures within the restorations.**

**The failure of a restoration can be manifested as:**

- Discomfort**
- Loose bridge**
- Recurrent caries**
- Pulp degeneration**
- Atrophy of the supporting structure**
- Fracture of the porcelain veneer**
- Fracture of the framework**

# *Assessing the seriousness of the Problem*

In existing restorations there is not infrequently one or other of the faults. A decision has to be made between:

- Leaving it alone. if it is not causing any serious harm
- Adjusting or repairing the fault
- Remaking the crown or bridge.



# Repair of crown & fpd

- Intra oral repair
- Extra oral repair
- *Repairs by removing or replacing parts of a bridge*

# INTRA ORAL REPAIR

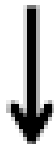
- Restore chipped ceramic portion.
- Restore a perforation in the occlusal table either by precious or non-precious (amalgam for base metal & gold foil or gold inlay for gold rest.)

# Fractured Porcelain Veneer

Repair rather than Remake



To save the patient's

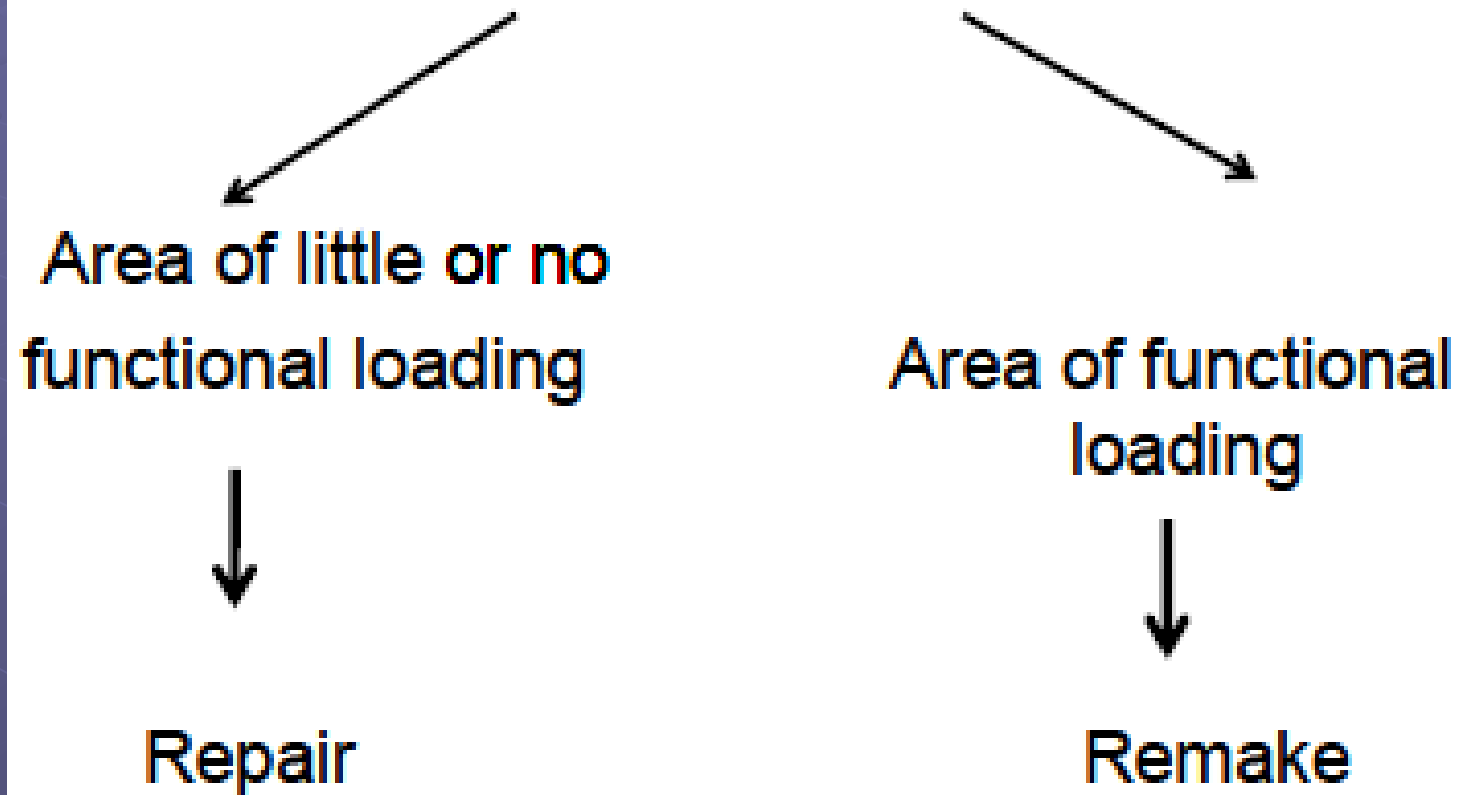


Discomfort

Time

Money

## Repair depends on the site of fracture







1

Roughen the surface with a diamond point, rinse and dry.



2

Apply K-etchant GEL on the surface, leave in place for 5 seconds, rinse and dry.



3

If the surface contains metal, apply ALLOY PRIMER.



4

Apply CLEARFIL™ CERAMIC PRIMER to the surface and dry.



5

If the surface contains metal, apply CLEARFIL™ ST OPAQUER and light-cure.



6

Place and light-cure the selected composite resin (e.g. CLEARFIL MAJESTY™ Esthetic).







# Extra oral repair

- Correct porcelain chipping
- Correct over extended margin.
- Repair fracture solder joint.
- Repair perforated restoration with solder alloy.





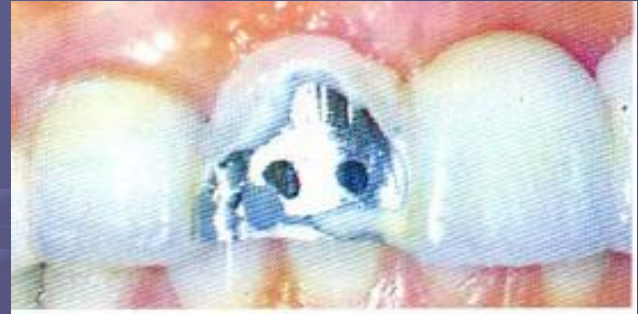
**Fractured Solder Joint**

# Repairs by removing or replacing parts of a bridge

- Removing and/or replacing entire sections of a bridge
- Replacing lost facings
  - Preformed or proprietary facings
  - Ceramic facings

## *Ceramic facings*

- When porcelain is lost from a metal-ceramic unit and composite repair is not possible – often better to replace whole crown.
- Sometimes possible with a pontic. A hole is drilled through the backing and an impression is taken with suitable pins for a new pin retained metal-ceramic facing.
  - It could be a little bulkier than the original!





- Sometimes possible to fix retainers or pontics by removing all the porcelain and reprepare the metal part using a “*metal ceramic sleeve crown*” which covers the skeleton of the old retainer or pontic.
- Sometimes made with heat cured acrylic or laboratory light cured composite.



**The sleeve-crown**





**band c Fortunately it was possible to remove the bridge intact, and. after removing the canine retainer. the remaining three units could be re-cernented. A separate Post crown was made for the canine tooth following Endodontic treatment.**



# Removing and/or replacing entire sections of a bridge

- A good purpose for removable, telescopic crown retained bridges and of dividing multiple unit bridges into smaller sections.
- When a part of a bridge is removed, the remainder can be modified like cutting a slot for a movable joint and replacing the lost section.
- Bridges can also be extended using same principles if more teeth are apparently lost



# Remake

- Need to change the bridge design.
- Looseness of abutments.
- Fractured ceramic Core.
- Cervical decay related to the crown margin